

## SEQUENCE LISTING

<110> Thompson, Penny J.  
Sheppard, Paul O.

<120> Uses of Human Zven Antagonists

<130> 02-22

<150> 60/416,719  
<151> 2002-10-07

<150> 60/416,718  
<151> 2002-10-07

<150> 60/434,116  
<151> 2002-12-16

<150> 60/433,918  
<151> 2002-12-16

<150> to be determined  
<151> 2003-10-03

<150> to be determined  
<151> 2003-10-03

<160> 29

<170> FastSEQ for Windows Version 4.0

<210> 1  
<211> 1496  
<212> DNA  
<213> Homo sapiens

<220>  
<221> CDS  
<222> (66)...(389)

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<400> 1
cgcccttact cactataggg ctcgagcggc cgcccgggca ggtgccgccc agtcccgagg      60
gcgcc atg agg agc ctg tgc tgc gcc cca ctc ctg ctc ctc ttg ctg ctg      110
      Met Arg Ser Leu Cys Cys Ala Pro Leu Leu Leu Leu Leu Leu Leu
            1             5             10             15

ccg ccg ctg ctg ctc acg ccc cgc gct ggg gac gcc gcc gtg atc acc      158
Pro Pro Leu Leu Leu Thr Pro Arg Ala Gly Asp Ala Ala Val Ile Thr
            20             25             30

ggg gct tgt gac aag gac tcc caa tgt ggt gga ggc atg tgc tgt gct      206
Gly Ala Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala
            35             40             45

gtc agt atc tgg gtc aag agc ata agg att tgc aca cct atg ggc aaa      254
Val Ser Ile Trp Val Lys Ser Ile Arg Ile Cys Thr Pro Met Gly Lys
            50             55             60

ctg gga gac agc tgc cat cca ctg act cgt aaa gtt cca ttt ttt ggg      302

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```

Leu Gly Asp Ser Cys His Pro Leu Thr Arg Lys Val Pro Phe Phe Gly
 65              70              75

cgg agg atg cat cac act tgc cca tgt ctg cca ggc ttg gcc tgt tta      350
Arg Arg Met His His Thr Cys Pro Cys Leu Pro Gly Leu Ala Cys Leu
 80              85              90              95

cgg act tca ttt aac cga ttt att tgt tta gcc caa aag taatcgctct      399
Arg Thr Ser Phe Asn Arg Phe Ile Cys Leu Ala Gln Lys
      100              105

ggagtagaaa ccaaatgtga atagccacat cttacctgta aagtcttact tgtgatttgt      459
ccaaacaaaa aatgtgccag aaagaaatgc tcttgcttcc tcaactttcc aagtaacatt      519
tttatctttg atttgtaaat gatttttttt ttttttttta tcgaaagaga attttacttt      579
tggatagaaa tatgaagtgt aaggcattat ggaactgggt cttatttccc tgttttgtgt      639
ttggtttgat ttggcttttt tcttaaatgt caaaaacgta cccattttca caaaaatgag      699
gaaaataaga atttgatatt ttgttagaaa aacttttttt tttttttctc accaccccaa      759
gccccatttg tgccctgccg cacaaataca cctacagctt ttgggtccct gcctcttcca      819
cctcaaagaa tttcaaggct cttaccttac tttatttttg tccattttct tccctcctc      879
ttgcatttta aagtggagggt tttgtctctt tgagtttgat ggcagaatca ctgatgggaa      939
tccagctttt tgctggcatt taaatagtga aaagagtgt tatgtgaact tgacactcca      999
aactcctgtc atggcacgga agctaggagt gctgctggac ccttcctaaa cctgtcactc     1059
aagaggactt cagctctgct gttgggctgg tgtgtggaca gaaggaatgg aaagccaaat     1119
taatttagtc cagatttcta ggtttgggtt tttctaaaaa taaaagatta catttacttc     1179
ttttactttt tataaagttt ttttccctta gtctcctact tagagatatt ctagaaaatg     1239
tcacttgaag aggaagtatt tattttaatc tggcacaaca ctaattacca tttttaaagc     1299
ggtattaagt tgtaatttaa accttgtttg taactgaaag gtcgattgta atggattgcc     1359
gtttgtacct gtatcagtat tgctgtgtaa aaattctgta tcagaataat aacagtactg     1419
tatatcattt gatttatttt aatattatat ccttattttt gtcaaaaaaa aaaaaaaaaa     1479
aaaaatatgc ggccgcg

```

```

<210> 2
<211> 108
<212> PRT
<213> Homo sapiens

```

```

<400> 2
Met Arg Ser Leu Cys Cys Ala Pro Leu Leu Leu Leu Leu Leu Leu Pro
 1              5              10              15
Pro Leu Leu Leu Thr Pro Arg Ala Gly Asp Ala Ala Val Ile Thr Gly
      20              25              30
Ala Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala Val
      35              40              45
Ser Ile Trp Val Lys Ser Ile Arg Ile Cys Thr Pro Met Gly Lys Leu
      50              55              60
Gly Asp Ser Cys His Pro Leu Thr Arg Lys Val Pro Phe Phe Gly Arg
      65              70              75              80
Arg Met His His Thr Cys Pro Cys Leu Pro Gly Leu Ala Cys Leu Arg
      85              90              95
Thr Ser Phe Asn Arg Phe Ile Cys Leu Ala Gln Lys
      100              105

```

```

<210> 3
<211> 324
<212> DNA
<213> Artificial Sequence

```

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<220>
<223> This degenerate sequence encodes the amino acid
      sequence of SEQ ID NO:2.

```

```

<221> misc_feature

```

<222> (1)...(324)

<223> n = A,T,C or G

<400> 3

atgmgnwsny	tntgytgygc	nccnytnytn	ytnytnytny	tnytnccncc	nytnytnytn	60
acnccnmng	cnggngaygc	ngcngtnath	acnggngcnt	gygayaarga	ywsncartgy	120
ggnggnggna	tgtgytgygc	ngtnwsnath	tgggtnaarw	snathmgnat	htgyacnccn	180
atgggnaary	tnggngayws	ntgycayccn	ytnacnmgna	argtnccntt	yttyggngmn	240
mgnatgcayc	ayacntgycc	ntgyytncn	ggnytnngnt	gyytnmgnac	nwsnttyaay	300
mgnttyatht	gyytnngcna	raar				324

<210> 4

<211> 1409

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (91)...(405)

<400> 4

tggcctcccc	agcttgccag	gcacaaggct	gagcgggagg	aagcgagagg	catctaagca	60
ggcagtggtt	tgccttcacc	ccaagtgacc	atg aga ggt gcc acg cga gtc tca			114
			Met Arg Gly Ala Thr Arg Val Ser			
			1 5			

atc atg ctc ctc cta gta act gtg tct gac tgt gct gtg atc aca ggg	162
Ile Met Leu Leu Leu Val Thr Val Ser Asp Cys Ala Val Ile Thr Gly	
10 15 20	

gcc tgt gag cgg gat gtc cag tgt ggg gca ggc acc tgc tgt gcc atc	210
Ala Cys Glu Arg Asp Val Gln Cys Gly Ala Gly Thr Cys Cys Ala Ile	
25 30 35 40	

agc ctg tgg ctt cga ggg ctg cgg atg tgc acc ccg ctg ggg cgg gaa	258
Ser Leu Trp Leu Arg Gly Leu Arg Met Cys Thr Pro Leu Gly Arg Glu	
45 50 55	

ggc gag gag tgc cac ccc ggc agc cac aag gtc ccc ttc ttc agg aaa	306
Gly Glu Glu Cys His Pro Gly Ser His Lys Val Pro Phe Phe Arg Lys	
60 65 70	

cgc aag cac cac acc tgt cct tgc ttg ccc aac ctg ctg tgc tcc agg	354
Arg Lys His His Thr Cys Pro Cys Leu Pro Asn Leu Leu Cys Ser Arg	
75 80 85	

ttc ccg gac ggc agg tac cgc tgc tcc atg gac ttg aag aac atc aat	402
Phe Pro Asp Gly Arg Tyr Arg Cys Ser Met Asp Leu Lys Asn Ile Asn	
90 95 100	

ttt taggcgcttg cctggtctca ggataccac catccttttc ctgagcacag	455
Phe	
105	

cctggatttt	tatttctgcc	atgaaaccca	gtcccatga	ctctcccagt	ccctacactg	515
actaccctga	tctctcttgt	ctagtacgca	catatgcaca	caggcagaca	tacctcccat	575
catgacatgg	tccccaggct	ggcctgagga	tgtcacagct	tgaggctgtg	gtgtgaaagg	635
tggccagcct	ggttctcttc	cctgctcagg	ctgccagaga	ggtggtaaat	ggcagaaagg	695
acattcccc	tccccctccc	aggtgacctg	ctctcttttc	tgggccctgc	ccctctcccc	755
acatgtatcc	ctcggctctga	attagacatt	cctgggcaca	ggctcttggt	tgcattgtct	815
agagtcccag	gtcctggcct	gaccctcagg	cccttcacgt	gaggtctgtg	aggaccaatt	875
tgtgggtagt	tcattctccc	tcgattgggt	aactccttag	tttcagacca	cagactcaag	935

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attggctctt cccagagggc agcagacagt caccccaagg caggtgtagg gagcccaggg      995
aggccaatca gccccctgaa gactctgggc ccagtcagcc tgtgggcttgt ggcctgtgac    1055
ctgtgacctt ctgccagaat tgtcatgcct ctgaggcccc ctcttaccac actttaccag    1115
ttaaccactg aagcccccaa ttcccacagc ttttccatta aaatgcaaat ggtgggtggtt    1175
caatctaata tgatattgac atattagaag gcaattaggg tgtttcctta aacaactcct    1235
ttccaaggat cagccctgag agcagggttg tgactttgag gagggcagtc ctctgtccag    1295
attgggggtg gagcaagga caggagcag ggcaggggct gaaaggggca ctgattcaga    1355
ccagggaggc aactacacac caacctgctg gctttagaat aaaagcacca actg      1409

```

```

<210> 5
<211> 105
<212> PRT
<213> Homo sapiens

```

```

<400> 5
Met Arg Gly Ala Thr Arg Val Ser Ile Met Leu Leu Leu Val Thr Val
 1           5           10           15
Ser Asp Cys Ala Val Ile Thr Gly Ala Cys Glu Arg Asp Val Gln Cys
 20           25           30
Gly Ala Gly Thr Cys Cys Ala Ile Ser Leu Trp Leu Arg Gly Leu Arg
 35           40           45
Met Cys Thr Pro Leu Gly Arg Glu Gly Glu Glu Cys His Pro Gly Ser
 50           55           60
His Lys Val Pro Phe Phe Arg Lys Arg Lys His His Thr Cys Pro Cys
 65           70           75           80
Leu Pro Asn Leu Leu Cys Ser Arg Phe Pro Asp Gly Arg Tyr Arg Cys
 85           90           95
Ser Met Asp Leu Lys Asn Ile Asn Phe
100           105

```

```

<210> 6
<211> 315
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> This degenerate sequence encodes the amino acid
sequence of SEQ ID NO:5.

```

```

<221> misc_feature
<222> (1)...(315)
<223> n = A,T,C or G

```

```

<400> 6
atgmngngng cnacnmngnt nwsnathatg ytnytnytng tnacngtnws ngaytgygcn      60
gtcnathacng gngcntgyga rmngaygtn cartgyggng cnggnacntg ytgygcnath    120
wsnytntggy tnmngngnyt nmgnatgtgy acncnnytng gnmngngargg ngargartgy    180
cayccnggnw sncayaargt nccnttytty mgnaarmgna arcaycayac ntgyccntgy    240
ytncnaaayy tnyntgyws nmgnnttyccn gayggnmgnt aymngntgyws natggayytn    300
aaraayatha aytty      315

```

```

<210> 7
<211> 16
<212> PRT
<213> Artificial Sequence

```

```

<220>
<223> Peptide linker.

```

```

<400> 7

```

Gly Gly Ser Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser  
 1 5 10 15

<210> 8  
 <211> 10  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Motif.

<221> VARIANT  
 <222> (8)...(8)  
 <223> Xaa is Asp or Glu.

<221> VARIANT  
 <222> (9)...(9)  
 <223> Xaa is Lys or Arg.

<221> VARIANT  
 <222> (1)...(10)  
 <223> Xaa = Any Amino Acid

<400> 8  
 Ala Val Ile Thr Gly Ala Cys Xaa Xaa Asp  
 1 5 10

<210> 9  
 <211> 23  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Motif.

<221> VARIANT  
 <222> (4)...(4)  
 <223> Xaa is Gly or Leu.

<221> VARIANT  
 <222> (5)...(5)  
 <223> Xaa is Ser or Thr.

<221> VARIANT  
 <222> (6)...(6)  
 <223> Xaa is His or Arg.

<221> VARIANT  
 <222> (12)...(12)  
 <223> Xaa is any amino acid.

<221> VARIANT  
 <222> (13)...(13)  
 <223> Xaa is Lys or Arg.

<221> VARIANT  
 <222> (15)...(15)  
 <223> Xaa is any amino acid.

<400> 9  
 Cys His Pro Xaa Xaa Xaa Lys Val Pro Phe Phe Xaa Xaa Arg Xaa His  
 1 5 10 15

His Thr Cys Pro Cys Leu Pro  
20

<210> 10  
<211> 6  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Glu-Glu tag

<400> 10  
Glu Tyr Met Pro Met Glu  
1 5

<210> 11  
<211> 249  
<212> DNA  
<213> Homo sapiens

<400> 11  
atggccgtga tcaccggggc ttgtgacaag gactcccaat gtggtggagg catgtgctgt 60  
gctgtcagta tctgggtcaa gacataagg atttgacac ctatgggcaa actgggagac 120  
agctgccatc cactgactcg taaagttcca ttttttgggc ggaggatgca tcacacttgc 180  
ccgtgtctgc caggcttggc ctgtttacgg acttcattta accgatttat ttgttttagcc 240  
caaaagtaa 249

<210> 12  
<211> 68  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> oligonucleotide primer ZC40821

<400> 12  
ctagaaataa ttttgttttaa cttaagaag gagatatata tatggccgtg atcaccgggg 60  
cttgtgac 68

<210> 13  
<211> 67  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> oligonucleotide primer ZC40813

<400> 13  
tctgtatcag gctgaaaatc ttatctcatc cgccaaaaca ttacttttgg gctaaacaaa 60  
taaatacg 67

<210> 14  
<211> 249  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Codon optimized polynucleotide sequence for Zven1

<400> 14  
atggctgtta ttaccggtgc ttgcgacaaa gactctcagt gtggtggtgg tatgtgctgc 60  
gctgtttcta tctgggttaa atctatccgt atctgcactc ctatgggtaa actgggtgac 120

tcttgccatc cgctgactcg taaagttccg ttcttcgggc gtcgtatgca tcacacctgt 180  
 ccgtgcctgc cgggtctggc ttgcctgcgt acctctttca accgtttcat ttgcctggct 240  
 cagaagtaa 249

<210> 15  
 <211> 79  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Oligonucleotide primer ZC45,048

<400> 15  
 agtcaatgga tgacaagaat cacccaactt acccatagga gtacaaattc tgatagactt 60  
 aacccaaata gaaacagca 79

<210> 16  
 <211> 77  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Oligonucleotide primer ZC45049

<400> 16  
 ttcttgtcat ccattgacta gaaaggttcc attctttggg agaaggatgc atcacacttg 60  
 tccatgtttg ccagggtt 77

<210> 17  
 <211> 70  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Oligonucleotide primer ZC45050

<400> 17  
 ttacttttga gccaaacaaa tgaatctggt gaaagaagtt ctcaaacaag ccaaacctgg 60  
 caaacatgga 70

<210> 18  
 <211> 68  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Oligonucleotide primer ZC45051

<400> 18  
 attactgggtg cttgtgataa ggattctcaa tgtgggtggg gtatgtgttg tgctgtttct 60  
 atttgggt 68

<210> 19  
 <211> 65  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Oligonucleotide primer ZC45052

<400> 19  
 ttatcacaag caccagtaat aacagcagca tcaccgggtc ttggagtcaa caacaatggg 60

ggcaa

65

<210> 20  
 <211> 59  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Oligonucleotide primer ZC45053

<400> 20  
 atgagatctt tgtgttgatgc tccattgttg ttgttgattgt tgttgccacc attgttggt 59

<210> 21  
 <211> 1182  
 <212> DNA  
 <213> Homo sapiens

<400> 21  
 atggagacca ccatgggggtt catggatgac aatgccacca acacttccac cagcttcctt 60  
 tctgtgctca accctcatgg agcccatgcc acttccttcc cattcaactt cagctacagc 120  
 gactatgata tgccttttga tgaagatgag gatgtgacca attccaggac gttccttgct 180  
 gccaagattg tcattgggat ggccctgggtg ggcacatgc tgggtctgcgg cattggaaac 240  
 ttcatcttta tcgctgccct ggtccgctac aagaaactgc gcaacctcac caacctgctc 300  
 atcgccaacc tggccatctc tgacttcctg gtggccattg tctgctgccc ctttgagatg 360  
 gactactatg tgggtgcgcca gctctcctgg gagcacggcc acgtcctgtg cacctctgtc 420  
 aactacctgc gcaactgtctc tctctatgtc tccaccaatg cctgctggc catcgccatt 480  
 gacaggtatc tggctattgt ccatccgctg agaccacgga tgaagtgcc aacagccact 540  
 ggcctgattg ccttggtgtg gacggtgtcc atcctgatcg ccatcccttc cgcctacttc 600  
 accaccgaga cggtcctcgt cattgtcaag agccaggaaa agatcttctg cggccagatc 660  
 tggcctgtgg accagcagct ctactacaag tcctacttcc tctttatctt tggcatagaa 720  
 ttctgtgggccc ccgtgggtcac catgaccctg tgctatgcca ggatctcccg ggagctctgg 780  
 ttcaaggcgg tccctggatt ccagacagag cagatccgca agaggctgcg ctgccgcagg 840  
 aagacgggtc tgggtgctcat gtgcacctc accgcctacg tgctatgctg ggcgcccttc 900  
 tacggcttca ccatcgtgcg cgacttcttc cccaccgtgt ttgtgaagga gaagcactac 960  
 ctactcgtc tctacatcgt cgagtgcac gccatgagca acagcatgat caacactctg 1020  
 tgcttcgtga ccgtcaagaa cgacaccgtc aagtaattca aaaagatcat gttgctccac 1080  
 tgggaaggctt cttacaatgg cggttaagtc agtgacagac tggacctcaa gacaattggg 1140  
 atgcctgcca ccgaagaggt ggactgcac agactaaaat aa 1182

<210> 22  
 <211> 1155  
 <212> DNA  
 <213> Homo sapiens

<400> 22  
 atggcagccc agaatggaaa caccagtttc acacccaact ttaatccacc ccaagaccat 60  
 gctcctcccc tctcctttaa cttcagttat ggtgattatg acctccctat ggatgaggat 120  
 gaggacatga ccaagacccg gaccttcttc gcagccaaga tcgtcatttg cattgcactg 180  
 gcaggcatca tgctggctcg cggcatcggt aactttgtct ttatcgctgc cctcaccgcg 240  
 tataaagaagt tgcgcaacct caccaatctg ctcatggcca acctggccat ctccgacttc 300  
 ctggtggcca tcatctgctg ccccttcgag atggactact acgtggtagc gcagctctcc 360  
 tgggagcatg gccacgtgct ctgtgcctcc gtcaactacc tgcgcaccgt ctccctctac 420  
 gtctccacca atgccttgct ggccattgcc attgacagat atctcgccat cgttcacccc 480  
 ttgaaaccac ggatgaatta tcaaaccggc tccttcctga tcgccttggt ctggatgggtg 540  
 tccattctca ttgccatccc atcggtttac tttgcaacag aaacggtcct ctttattgtc 600  
 aagagccagg agaagatctt ctgtggccag atctggcctg tggatcagca gctctactac 660  
 aagtcctact tcctcttcat ctttgggtgtc gagttcgtgg gccctgtggc caccatgacc 720  
 ctgtgctatg ccaggatctc ccgggagctc tgggtcaagg cagtccttgg gttccagacg 780  
 gagcagattc gcaagcggct gcgctgcgc aggaagacgg tcctgggtgct catgtgcatt 840  
 ctacaggcct atgtgctgtg ctgggcaccc ttctacggtt tcaccatcgt tcgtgacttc 900  
 tccccactg tgttcgtgaa ggaaaagcac tacctcactg ccttctacgt ggtcagtgct 960



```

atcgccatga gcaacagcat gatcaacacc gtgtgcttcg tgacgggtcaa gaacaacacc 1020
atgaagtact tcaagaagat gatgctgctg cactggcgtc cctcccagcg ggggagcaag 1080
tccagtgtcg accttgacct cagaaccaac ggggtgccca ccacagaaga ggtggactgt 1140
atcaggctga agtga                                     1155

```

```

<210> 23
<211> 28
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Oligonucleotide primer ZC29463

```

```

<400> 23
ggaattcatg aggagcctgt gctgcgcc                                     28

```

```

<210> 24
<211> 31
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Oligonucleotide primer ZC29462

```

```

<400> 24
gctctagacc cttttgggct aaacaaataa a                                     31

```

```

<210> 25
<211> 348
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Expression sequence

```

```

<400> 25
atgaggagcc tgtgtgctgc cccactcctg ctcctcttgc tgctgccgcc gctgctgctc 60
acgccccgcg ctggggacgc cgccgtgatc accggggctt gtgacaagga ctcccaatgt 120
ggtggaggca tgtgtgtgtc tgtcagtatc tgggtcaaga gcataaggat ttgcacacct 180
atgggcaaac tgggagacag ctgccatcca ctgactcgta aagttccatt ttttgggcgg 240
aggatgcac acacttgccc gtgtctgcca ggcttggcct gtttacggac ttcatttaac 300
cgatttatct gtttagccca aaagggctca gaatacatgc cgatggac                 348

```

```

<210> 26
<211> 116
<212> PRT
<213> Artificial Sequence

```

```

<220>
<223> Expression sequence with Gly linker and
      Glu-Glu-tag

```

```

<400> 26
Met Arg Ser Leu Cys Cys Ala Pro Leu Leu Leu Leu Leu Leu Leu Pro
 1           5           10           15
Pro Leu Leu Leu Thr Pro Arg Ala Gly Asp Ala Ala Val Ile Thr Gly
      20           25           30
Ala Cys Asp Lys Asp Ser Gln Cys Gly Gly Gly Met Cys Cys Ala Val
      35           40           45

```

Ser	Ile	Trp	Val	Lys	Ser	Ile	Arg	Ile	Cys	Thr	Pro	Met	Gly	Lys	Leu
50					55					60					
Gly	Asp	Ser	Cys	His	Pro	Leu	Thr	Arg	Lys	Val	Pro	Phe	Phe	Gly	Arg
65					70				75						80
Arg	Met	His	His	Thr	Cys	Pro	Cys	Leu	Pro	Gly	Leu	Ala	Cys	Leu	Arg
				85					90					95	
Thr	Ser	Phe	Asn	Arg	Phe	Ile	Cys	Leu	Ala	Gln	Lys	Gly	Leu	Glu	Tyr
			100					105					110		
Met	Pro	Met	Asp												
			115												

<210> 27  
 <211> 393  
 <212> PRT  
 <213> Homo sapiens

<400> 27															
Met	Glu	Thr	Thr	Met	Gly	Phe	Met	Asp	Asp	Asn	Ala	Thr	Asn	Thr	Ser
1				5				10						15	
Thr	Ser	Phe	Leu	Ser	Val	Leu	Asn	Pro	His	Gly	Ala	His	Ala	Thr	Ser
			20					25					30		
Phe	Pro	Phe	Asn	Phe	Ser	Tyr	Ser	Asp	Tyr	Asp	Met	Pro	Leu	Asp	Glu
		35					40				45				
Asp	Glu	Asp	Val	Thr	Asn	Ser	Arg	Thr	Phe	Phe	Ala	Ala	Lys	Ile	Val
	50					55					60				
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Thr	Asn	Leu	Leu	Ile	Ala	Asn	Leu	Ala	Ile	Ser	Asp	Phe	Leu	Val	Ala
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		115					120					125			
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Gln	Thr	Ala	Thr	Gly	Leu	Ile	Ala	Leu	Val	Trp	Thr	Val	Ser	Ile	Leu
			180					185					190		
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Phe	Val	Gly	Pro	Val	Val	Thr	Met	Thr	Leu	Cys	Tyr	Ala	Arg	Ile	Ser
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	290					295					300				
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Leu	Thr	Ala	Phe	Tyr	Ile	Val	Glu	Cys	Ile	Ala	Met	Ser	Asn	Ser	Met
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Phe	Phe 50	Ala	Ala	Lys	Ile	Val 55	Ile	Gly	Ile	Ala	Leu 60	Ala	Gly	Ile	Met
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Tyr	Lys	Lys	Leu	Arg 85	Asn	Leu	Thr	Asn	Leu 90	Leu	Ile	Ala	Asn	Leu 95	Ala
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Ala	Ser	Val 130	Asn	Tyr	Leu	Arg 135	Thr	Val	Ser	Leu	Tyr 140	Val	Ser	Thr	Asn
Ala 145	Leu	Leu	Ala	Ile	Ala 150	Ile	Asp	Arg	Tyr	Leu 155	Ala	Ile	Val	His	Pro 160
Leu	Lys	Pro	Arg	Met 165	Asn	Tyr	Gln	Thr	Ala 170	Ser	Phe	Leu	Ile	Ala 175	Leu
Val	Trp	Met	Val 180	Ser	Ile	Leu	Ile	Ala 185	Ile	Pro	Ser	Ala	Tyr 190	Phe	Ala
Thr	Glu	Thr 195	Val	Leu	Phe	Ile	Val 200	Lys	Ser	Gln	Glu	Lys 205	Ile	Phe	Cys
Gly	Gln	Ile	Trp	Pro	Val	Asp 215	Gln	Gln	Leu	Tyr	Tyr 220	Lys	Ser	Tyr	Phe
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Ala	Pro 290	Phe	Tyr	Gly	Phe	Thr 295	Ile	Val	Arg	Asp	Phe 300	Phe	Pro	Thr	Val
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Lys	Asn	Asn	Thr 340	Met	Lys	Tyr	Phe	Lys 345	Lys	Met	Met	Leu	Leu 350	His	Trp
Arg	Pro	Ser 355	Gln	Arg	Gly	Ser	Lys 360	Ser	Ser	Ala	Asp	Leu 365	Asp	Leu	Arg
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 Lys